We claim:

1   A method for forwarding packets to a network, comprising the steps of:

2   attempting to forward a packet stored in memory to the network;

3   establishing a time limit within which to forward the packet stored in the memory

4   to the network;

5   monitoring an elapsed period of time while attempting to forward the packet

6   stored in the memory to the network; and

7   determining whether to cancel attempts to forward the packet stored in the

8   memory to the network when the elapsed period of time exceeds the time limit.

1   2.   The method of claim 1 further comprising the step of canceling attempts to

2   forward the packet stored in the memory when that packet is not currently being

3   transmitted over the network.

1   3.   The method of claim 1 further comprising the step of allowing

2   transmission of the packet stored in the memory to complete when that packet is currently

3   being transmitted over the network

1   4.   The method of claim 1 further comprising the step of interrupting

2   transmission of the packet stored in the memory when that packet is currently being

3   transmitted over the network.

1   5.   The method of claim 1 further comprising the steps of resetting a timer to

2   allow additional attempts to forward the packet stored in the memory when that packet is

3   not currently being transmitted over the network.

1   6.   The method of claim 1 further comprising the step of replacing the packet

2   stored in the memory with a new packet having the same data as the replaced packet

3   when it is determined to cancel the forwarding of the stored packet.

1   7.   The method of claim 1 further comprising the step of replacing the packet

2   stored in memory with a new packet having different data than the replaced packet when

3   it is determined to cancel the forwarding of the stored packet.

1   8.   The method of claim 7 wherein the packet stored in memory includes

2   time-sensitive data and protocol-related data, and the new packet has the same time-

3   sensitive data and different protocol-related data as the replaced packet.

1   9.   The method of claim 8 further comprising the steps of:

2   resetting a back-off level; and

3   attempting to forward the new packet to the network.

1   10.   The method of claim 9 further comprising the steps of:

2   initiating attempts to transmit the new packet to the network; and

3   resetting the elapsed period of time.

1   11. The method of claim 8 wherein the packet stored in memory includes

2   time-sensitive data and the step of replacing the packet stored in memory with a new

3   packet can occur a predetermined maximum number of times.

1   12. The method of claim 7 wherein the packet stored in memory includes

2   time-sensitive data and protocol-related data, and the new packet has different time-

3   sensitive data and the same protocol-related data as the replaced packet.

1   13. The method of Claim 1 wherein the steps of monitoring, establishing the

2   time limit, and determining whether to cancel forwarding the packet stored in memory

3   occur only when the packet stored in the memory includes time-sensitive data.